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ABSTRACT

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Abstract

In an evaluation of the Reading Efficiency course at Windermere Secondary School, the experimental group made greater gains (statistically significant at the .01 level) in the Reading Rate subtest of the Nelson-Denny Reading Test than did the control group. The experimental group also made greater gains than the control group in reading rate on the subtests of the EDL Reading Versatility Test. The research results indicated that students' reading rates as measured by the Nelson-Denny Reading Test and the EDL Reading Versatility Test improved during the Reading Efficiency program at Windermere Secondary School.

AN EVALUATION OF THE READING EFFICIENCY PROGRAM AT WINDERMERE SECONDARY SCHOOL DURING 1970-1971.

Introduction

A Reading Efficiency course was offered to Grade 12 students on a voluntary basis at Windermere Secondary School. Typical reasons from students who felt a need for improving reading skills in order to succeed in post-secondary education or in business were:

> "My current reading speed is not efficient when it comes to studying. I find myself reading the same passages over and over trying to find the meaning. My speed and comprehension are holding me back in my studies. I intend to go to U. B. C. this fall and I know that a Reading Efficiency course would help me greatly."
>
> "I am entering U. B. C. next year and I personally think that my reading standards are below average..."
>
> "This year in English 12A it takes me one hour to read 23 pages of a novel. I find that I have to read over the copy a few times to get the full meaning of it. Since I will be going to University in the near future I'm sure that this course would save me a lot of work and time..."
>
> "I believe that my reading and comprehension abilities are insufficient for university study. Financial difficulties have prevented me from taking a Reading Dynamics course..."

The Reading Efficiency Program

Reading Efficiency classes were scheduled at 7:45 a.m. twice weekly for a period of six weeks. In addition to the bi-weekly lessons of one hour duration, the students were assigned practice and follow-up exercises on job sheets for five evenings per week. All job sheets made provisions for thirty minutes of rapid reading with recreational-type materials. Throughout the course students were encouraged to read easy novels for practice in improving their new skills.

The goals of the Reading Efficiency program as stated by the teacher were:

1. To develop skill in purposeful and flexible reading,
2. To improve study skills,
3. To increase speed in recreational reading, and
4. To increase rate while retaining or improving comprehension.

The topics covered in the Reading Efficiency course to achieve these objectives were:

1. Mechanics of Reading,
2. Vocabulary Building,
3. SQ3R, A Study Technique,
4. Signal Words Used by Writers,
5. Location of Topic Sentences in Paragraphs,
6. Key-Word Reading,
7. Speed Reading,
8. Controlled Reading,
9. Basic Patterns Used by Writers,
10. Increased Comprehension through Speed, and
11. Reviewing a Book -- Reading Critically

Evaluation of the Reading Efficiency Program

The evaluation of this program consists of two parts. In the first part of this evaluation, matched pairs of students were placed arbitrarily and alternatively in experimental and control groups. The pre- and post-test scores of the Nelson-Denny Reading Tests (Forms A and B) and the EDL Reading Versatility Tests (Forms A and B) were compared statistically.

As the course was repeated later for members of the control group who had not studied the program with the experimental group, each student in the research sample was used as his own control in the second part of the evaluation.

Limitations of the Evaluation

The research sample is relatively small and varies in number for each statistical analysis as the test score data were not complete for all students in the Reading Efficiency program. As the Reading Efficiency program was only six weeks in duration, a relatively short period of time elapsed between pre- and post-tests to detect changes in reading performance. As the research study has a relatively small sample and a short-term experimental design, one should use caution in generalizing the findings to other situations.

Formation of the Experimental and Control Groups

For selecting the experimental and control groups, students who wanted to participate in the Reading Efficiency program were ranked on the basis of their total scores for the Vocabulary and Comprehension subtests of the Nelson-Denny Reading Test, Form B. The ranked students were assigned alternately to either the experimental and control groups.

Analyses of Pre- and Post-Test Scores of the Experimental and Control Groups

Analyses of the pre-test scores on the Vocabulary, Comprehension and Reading Rate subtests of the Nelson-Denny Reading Test revealed no statistically significant differences between the experimental group and the matched control group at the outset. (see Table I)

The post-test analyses in Table II revealed that the experimental group members who completed the Reading Efficiency program received higher scores on the Reading Rate subtest (although not statistically significant) than did the members of the control group. There was no statistically significant difference in post-test scores for "Vocabulary and Comprehension" between the experimental and control groups.

In Table III, the analysis of gains in raw scores revealed that the experimental group made greater gains on the Reading Rate subtest (statistically significant at the .01 level) than the control group. There was no statistically significant difference in the means gains on the Vocabulary and Comprehension subtests between the experimental and control groups.

In Tables V - XIII there were no statistically significant differences between experimental and control groups on the pre- and post-subtest scores of the EDL Reading Versatility Test. However, the experimental group (Reading Efficiency class) made greater gains than the control group in reading rate on the subtests of the EDL Reading Versatility Tests.

Analyses of the Reading Test Scores Received by the Control Group Before and During the Reading Efficiency Program

The Reading Efficiency course was repeated for members of the control group. Each student in the group was used as his own control as only the test scores received by the same person were compared.

In Table IV analysis of raw scores for the Nelson-Denny Reading Test indicated that the control group made greater gains in the Reading Rate subtest during the Reading Efficiency course of the second term than the gains they made as "Controls" during the first term. As the gains in Reading Rate are very large (statistically significant at the .01 level), they can be attributed largely to the effect of the program, even though practice in repeating the same forms of the Nelson-Denny Reading Test may have contributed slightly to improved performance by students.

Conclusion

These test results indicate that the goals of the Reading Efficiency program were being attained as reading rate for various types of materials, rather than comprehension, was emphasized to students.

TABLE I: ANALYSES BY "t" TEST OF PRE-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE NELSON-DENNY READING TEST			
	Vocabulary and Comprehension		Reading Rate	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	95.7	96.7	258.1	334.9
Standard Deviation	17.4	16.3	71.4	95.6
Difference Between Means	- 1.0		- 76.8	
"t" Value	0.10 (n.s.d.)		1.57 (n.s.d.)	

TABLE II: ANALYSES BY "t" TEST POST-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE NELSON-DENNY READING TEST			
	Vocabulary and Comprehension		Reading Rate	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	100.1	99.7	473.6	382.1
Standard Deviation	17.5	12.7	94.2	82.9
Difference Between Means	0.4		91.5	
"t" Value	0.04 (n.s.d.)		1.78 (n.s.d.)	

Legend: (n.s.d.) - no significant difference

TABLE III: ANALYSES BY "t" TEST OF GAINS IN RAW SCORES RECEIVED BY THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE NELSON-DENNY READING TEST			
	Vocabulary and Comprehension		Reading Rate	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean of Gains	4.4	1.3	215.4	24.4
Difference Between Means	3.1		191.0	
"t" Value	0.58 (n.s.d.)		3.26**	

Legend: (n.s.d.) - no significant difference
** significant at the .01 level

TABLE IV: ANALYSES BY "t" TEST OF GAINS IN RAW SCORES RECEIVED BY THE CONTROL GROUP BEFORE AND DURING THE READING EFFICIENCY PROGRAM

	SUBTESTS OF THE NELSON-DENNY READING TEST			
	Vocabulary and Comprehension		Reading Rate	
	First Term as a Control Group	Second Term Under Treatment	First Term as a Control Group	Second Term Under Treatment
Number of Subjects	10	10	9	9
Mean of Gains	8.6	7.8	49.6	455.1
Difference Between Means	- 0.8		405.5	
"t" Values	0.16 (n.s.d.)		5.39**	

Legend: n.s.d. - no significant difference
** significant at the .01 level

TABLE V: ANALYSES BY "t" TEST OF PRE-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Non-Fiction Reading Rate		Non-Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	214.1	330.8	74.3	84.3
Difference Between Means	- 116.7		- 10.0	
"t" Value	1.65 (n.s.d.)		1.34 (n.s.d.)	

TABLE VI: ANALYSES BY "t" TEST OF POST-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Non-Fiction Reading Rate		Non-Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	262.9	306.6	64.3	67.1
Difference Between Means	- 43.7		- 2.8	
"t" Value	0.93 (n.s.d.)		0.34 (n.s.d.)	

Legend: (n.s.d.) - no significant difference

TABLE VII: ANALYSES BY "t" TEST OF GAINS IN RAW SCORES RECEIVED BY THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Non-Fiction Reading Rate		Non-Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean of Gains	48.7	- 24.3	- 10.0	- 17.1
Difference Between Means	73.0		7.1	
"t" Value	1.09 (n.s.d.)		1.05 (n.s.d.)	

Legend: (n.s.d.) - no significant difference

TABLE VIII: ANALYSES BY "t" TEST OF PRE-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Fiction Reading Rate		Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	310.3	389.6	94.3	88.6
Difference Between Means	- 79.3		5.7	
"t" Value	2.08 (n. s. d.)		1.26 (n. s. d.)	

TABLE IX: ANALYSES BY "t" TEST OF POST-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Fiction Reading Rate		Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean Score	453.0	437.3	95.7	88.6
Difference Between Means	15.7		7.1	
"t" Value	0.19 (n. s. d.)		0.90 (n. s. d.)	

Legend: (n. s. d.) - no significant difference

TABLE X: ANALYSES BY "t" TEST OF GAINS IN RAW SCORES RECEIVED BY THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTESTS OF THE EDL READING VERSATILITY TEST			
	Fiction Reading Rate		Fiction Reading Comprehension	
	Experimental	Control	Experimental	Control
Number of Subjects	7	7	7	7
Mean of Gains	142.7	47.7	1.4	0
Difference Between Means	95.0		1.4	
"t" Value	1.47 (n. s. d.)		0.24 (n. s. d.)	

Legend: (n. s. d.) - no significant difference

TABLE XI: ANALYSES BY "t" TEST OF PRE-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTEST OF THE EDL READING VERSATILITY TEST Scanning Rate	
	Experimental	Control
Number of Subjects	3	3
Mean Score	622.3	737.6
Difference Between Means	- 115.3	
"t" Value	0.50 (n.s.d.)	

TABLE XII: ANALYSES BY "t" TEST OF POST-TEST RAW SCORES FOR STUDENTS IN THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTEST OF THE EDL READING VERSATILITY TEST Scanning Rate	
	Experimental	Control
Number of Subjects	3	3
Mean Score	898.3	742.7
Difference Between Means	155.6	
"t" Value	0.45 (n.s.d.)	

Legend: (n.s.d.) - no significant difference

TABLE XIII: ANALYSES BY "t" TEST OF GAINS IN RAW SCORES RECEIVED BY THE EXPERIMENTAL GROUP (READING EFFICIENCY CLASS) AND THE CONTROL GROUP

	SUBTEST OF THE EDL READING VERSATILITY TEST Scanning Rate	
	Experimental	Control
Number of Subjects	3	3
Mean of Gains	276.0	5.0
Difference Between Means	271.00	
"t" Value	1.20 (n.s.d.)	

Legend: (n.s.d.) - no significant difference